CDM Smith

Memorandum

To: *Mike Cirian, EPA*

From: *Gunnar Emilsson, CDM Smith*

Date: *October 25, 2017*

Subject: *Comments – Additional Data Collection and Expedited Risk Assessment Sampling and Analysis Plan for the South Percolation Ponds, Columbia Falls Aluminum Company*

CDM Federal Programs Corporation (CDM Smith), at the request of the United States Environmental Protection Agency (EPA), has reviewed the October 23, 2017 letter from Roux Associates, Inc. outlining their approach to conduct expedited sampling and laboratory analysis within and around the South Percolation Ponds at the Columbia Falls Aluminum Company (CFAC) Site.

General Comments

As discussed in the letter, the purpose of the expedited sampling is to collect additional data to better characterize the South Percolation Ponds in order to complete ongoing risk assessments in light of potential failure of the dam on the east side of the ponds that protects them from high water flows of the Flathead River. While CDM Smith has concerns over the format of this letter, the study design, and the stated risk assessment evaluation methods as discussed in the Specific Comments below, it is our opinion that the data collection methods, following previously approved RI/FS Work Plan protocols, will generate useful data that will meet data usability requirements. Given the limited timeframe remaining in the field season before the onset of winter conditions, we suggest that EPA allow this investigation to proceed, and that the specific comments below be addressed in data deliverable submittals or possible modifications to the sampling and analysis plan.

Specific Comments

1. The document appears to be written as an informal SAP/QAPP, however, it is greatly lacking in detail. This is not a formal SAP/QAPP, therefore the data that are collected may not have a high level of credibility. The DQOs were not developed in accordance with USEPA guidance. The requisite information that is to be presented for each step is lacking, particularly for DQO Step 5, which is to present the decision rules, and DQO Step 6, which is to present the decision hypotheses and tolerable limits for decision errors. It is recommended that future data collection efforts use SAP/QAPPs (not notification letters).

2. There is very little detail describing the soil sampling. Will samples be grab or composite? Will incremental sampling methodology be performed? Will samples be sieved? What is the

rationale for the sampling design? How was the number of samples determined? Will this number of samples be adequate for site characterization and subsequent risk analysis? How has information regarding site concentration variability been considered when selecting sample count and location?

3. Are samples that are being collected for this effort anticipated to be representative of high-end or low-end concentrations when considering seasonal variation of concentrations in site media? What potential bias should be considered when the risk evaluation is performed based on this consideration?

4. The RI/FS Work Plan is cited as a document that describes the risk assessment process that will be followed. This is incorrect. The forthcoming Risk Assessment Work Plan should contain the details for how the risk assessment will be conducted. It is critical to have consensus on the risk assessment approach prior to the risk assessment being completed. Of upmost importance is consensus on human health receptors, exposure pathways, and exposure parameters. For ecological risk, surrogate receptors and their exposure parameters should also be agreed upon. At a minimum an updated conceptual site model and summary of exposure parameters should be included. If not, it could appear that risk evaluations were performed in such a manner as to have a desired outcome.

5. Should porewater samples be collected? If an objective of this correspondence is to determine nature and extent of contamination, presumably to determine how contaminants are moving throughout the environment, this seems like a critical media type to have data for. This is something that continues to be discussed for the site, but is continually put off to potential later sampling. Isn't now the time to discuss the need or lack thereof if true?

6. The correspondence states that groundwater is a media of interest for characterization of site conditions and risk. Yet, no groundwater samples are slated to be collected? Why is this?